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REPORT OF THE OPERATIONS PERFORMED IN THE OPHTHALMIC DEPARTMENT OF THE CITY HOSPITAL, BOSTON, DURING THE YEAR ENDING DECEMBER 31, 1866.

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[Communicated for the Boston Medical and Surgical Journal.]

EXTRACTION of cataract has been done forty-two times by the ordinary flap method; the upper section having been made in all but six cases. Anæsthesia has been induced in all instances; usually by the inhalation of pure sulphuric ether, but in some cases, where the patient has been more than ordinarily insusceptible to its influence, this has been reinforced by the addition of a little chloroform. No accidents, from loss of vitreous or otherwise, have resulted from its administration, though emesis has sometimes occurred, during or after the operation. Iridectomy has not been resorted to, either previously to or at the time of operation, in these cases of flap extraction.

In twenty-five of the cases, a suture has been inserted at the centre of the margin of the corneal flap, as practised for the first time at this Hospital; a very delicate needle, one fourth of an inch in length, and a single strand of the finest silk, being made use of. The average period during which this has remained *in situ*, before becoming detached or being removed, has been nine days; but in one of the cases it was allowed to remain forty days, as the patient could not keep the eye sufficiently quiet to permit of its removal, and as it was not a source of any considerable annoyance. As a rule, however, the suture has been snipped off at the end of a week or ten days from the time of the operation; or even earlier, where the wound has become securely united.

The suture has never, so far as could be judged, had the slightest unfavorable influence on the progress of the cure; and its advantages in promoting the healing of the corneal wound, in preventing prolapse of the iris or vitreous, in admitting of the continued dilatation of the pupil, and in allowing the surgeon to examine the eye, daily, after the operation, are so obvious as scarcely to require mention.

In these, and in the seventeen cases where no suture was introduced, the same dressings were applied, small compresses being placed next the eyes, upon which were put graduated pledgets of soft lint, so as to restrain the movements of the eyeball without more than very moderate pressure upon it. This is kept in place by a flannel roller passed twice around the head; flannel being preferred on account of its elasticity.

Of the twenty-five suture cases, twenty-one were successful; one failed, from proliferous degeneration of the intra-capsular cells followed by iritis; another was temporarily unsuccessful from closure of the pupil, but can be relieved by iridectomy; two are still under treatment.

Of the seventeen cases where no suture was applied, sixteen were successful; and one failed in consequence of prolapsus iridis.

It should be stated, that in five of the cases above reported as successful, it was necessary to do a slight secondary operation, to lacerate portions of the capsule which interfered with distinct vision, before the patients obtained the power of seeing to read.

The average stay of the patients in the Hospital was twenty-two days.

Most of the extractions were done through the upper section of the cornea—that being preferred where no suture is employed; but as it was found easier to insert and to remove the suture from a flap by the lower section, this has been practised in the cases operated on near the end of the year; the placing of the suture having been adopted as the general rule.

Three operations of extraction by out-scooping combined with iridectomy were performed during the year. One of these was successful. The other two, on the same patient—a woman in feeble health and addicted to the excessive use of opium—were followed by irido-choroiditis and failure.

Out-scooping, with iridectomy, was also done in three cases of dislocation of a cretaceous lens into the field of the pupil or into the anterior chamber; and was followed by complete relief of the ciliary neurosis and the symptoms of sympathetic inflammation in the other eye, and by restoration of an almost normal appearance of the eyes; no improvement as to vision being expected from the operation.

The same method was employed in a case of traumatic cataract caused by a bit of steel, which had destroyed vision two years previously, and had caused partial disorganization of the globe, with symptoms of sympathetic irritation in the other eye. The lens, with the foreign body, was removed, with complete relief of all morbid phenomena.

Iridectomy was done in twelve cases for the relief of occlusion of the pupil resulting from iritis. In eight of these good vision was gained, in two others there was slight improvement; and two cases, where the operation was done as a forlorn hope, resulted unsuccessfully.

Staphyloma of the cornea was excised in three cases; sutures being inserted and the edges of the wound drawn together, according to Mr. Critchett's method. No inflammation followed, and the eyes, after the operation, retained almost their normal size.

In one instance, staphyloma of the cornea was rendered less prominent by the performance of iridectomy, without the necessity of resorting to excision.

The operation by suction through a small tube, after division of the capsule, was successfully practised for the removal of a soft cataract of ten years' standing, from a patient 28 years of age.

An abscess of the globe was opened, to give relief from the intense pain caused by intra-ocular pressure.

In three cases of glaucoma of both eyes, the eye most recently attacked was operated on by iridectomy, with complete success as regarded restoration of vision. The other eye of the same patients had become so far disorganized that no hope of vision remained, but it was necessary to perform iridectomy and remove the glaucomatous cataracts by out-scooping, to relieve the intense pain which still continued. This was immediately effected.

Three other cases of chronic glaucoma were also relieved of persistent and intense suffering by iridectomy; but the period when hope of restoring sight might have been entertained had long since passed.

One case of congenital cataract, in which iriddesis had been done with much advantage, was subjected to a second iriddesis to enlarge the visual field. But as the patient did not inhale ether, the capsule was probably injured in some slight movement of the eye, resulting in the slow absorption of the lens. The patient will therefore require a cataract glass instead of seeing without such aid, as had been intended when iriddesis was selected in preference to division of the crystalline.

Three congenital cataracts, in young infants, were successfully removed by division of the capsule and anterior portion of the lens by a fine needle passed through the cornea and pupil.

Division of the lens was also done in two cases of traumatic soft cataract; and removal of the opaque capsule with the canula forceps in two other traumatic cases—in all instances successfully.

Ten secondary operations were done, in cases which had previously undergone cataract operations, for the laceration or removal of portions of opaque capsule. Nine of these resulted successfully; in the tenth the patient recovered sufficient vision to enable him to find his way alone.

Operations for division of soft cataract were done on both eyes of a man 39 years of age; resulting in slow but complete absorption of the lenses, but requiring secondary operations for division of remnants of capsule before he obtained complete success.

In two cases where the eyeball had sustained traumatic injury, and

continued morbidly irritable, the globe was removed, to relieve the ciliary neurosis and avert the danger of sympathetic affection in the other eye. In another similar instance it was thought sufficient to remove only the anterior part of the eye, including the ciliary region. Satisfactory results were gained in all the cases.

In a patient whose right eye had been destroyed by a piece of percussion-cap five years previously, and whose left eye began to fail and to be painful eight months after the injury, the operation of iridectomy was done on the left eye, with excellent results—taking into consideration the unfavorable circumstances—the patient being able to tell the time by a watch on the fifth day after the operation, and leaving the Hospital with every prospect of considerable further improvement.

A large opaque deposit, perhaps of decomposed acetate of lead, was removed from a cornea with excellent results as regarded the appearance of the eyes and the amount of vision.

Paracentesis of the anterior chamber, for evacuation of the aqueous humor, was twice done on a patient affected with conical cornea, at intervals of three months; with great relief as regards intra-ocular and circum-orbital pain, and with improvement of vision. The operation has been several times repeated upon this patient during the last eight years—always with temporary advantage.

Fifty-one cases of strabismus have been operated on, by division of one of the muscles; most of these being out-patients. Many other milder cases—of staphyloma, pterygium, entropion, abscesses of orbit and of lachrymal sac, tumors of lid, &c., were operated on as out-patients.

OBSTETRIC TEACHING AND PRACTICE IN VIENNA.

[A letter written to the Norfolk (Mass.) District Medical Society, by D. F. Lincoln, M.D., of Boston, late a member of the Norfolk Society. Read January 16th, 1867.]

The "General Hospital" in Vienna is truly worthy of its name. Within its walls are delivered, every academical term, about eighty courses of lectures to all classes of medical students; varying in length from six weeks to three or four months, and embracing every possible ramification of modern medical science. Among the departments into which it is divided, almost entirely independent of one another, though occupying the same range of buildings, the midwifery section is prominent; giving shelter and care to about nine thousand (9000) women annually, and maintaining a corps of two professors and two assistants or sub-professors, it is almost unequalled in the world for the facilities it affords for obstetric studies. This fact is by none better understood than by the Americans. The English and Scotch are outnumbered by our countrymen; the French do not come to Vienna at all; the Poles, Hungarians and other neigh-

boring nationalties send pupils thither only because they are incapable of sustaining universities among themselves, through poverty in science and in means.

The department is in two portions—one devoted to the instruction of midwives (who receive diplomas, just as the male students do), and one to the sterner sex; the number of births in each being about 4000 and 5000 respectively per annum. A great part of the work in the lying-in wards is performed by midwives, who must all be graduates; and a very competent set of workers they are. In fact, nine tenths of all the births are conducted solely by the women; the two assistants (or sub-professors, as I have called them) taking turns to remain in the house, but paying little attention to the cases, except as they serve as material for instructing their classes of students. They are, however, always summoned in case of need. Forceps-cases are reserved, if convenient, for the class; if not, they are almost always "utilized" for the benefit of those present, and, especially, of the lucky student who has had the case assigned to him. By paying the fee to Prof. Braun's course of lectures on Midwifery, the student becomes "free of" the lying-in wards, and may enter them at any hour by day or night. He inscribes his name in a book which lies on the table, for one or for two days of the week, and on those days he keeps a sharp lookout for anything of interest, and has the right to put his name on the bed-slate of any patient he chooses; thus becoming entitled to conduct the case, always under the supervision of the assistant when there is need.

There are almost always from three to a dozen women in the act of parturition in the chamber devoted to that purpose. They are removed, of necessity, in a short time after delivery, to the other wards. Everything is clean, though the twilled linen sheets do not always look so nice as cotton ones. No trouble is spared to secure proper heat and ventilation; the windows are so high from the floor that nothing can be seen from them except the sky, and the ceiling is therefore nearly twelve feet high. The wards are all under one roof, and in the second and third stories. The food is plain, but very wholesome; the patients are treated humanely and reasonably. Discipline among the nurses is enforced to the incredible extent of confining them to their wards and rooms for a week at a time! a measure which would hardly be practicable in Boston. They submit to it, however, with good grace, and sometimes even with tears of repentance; for the loss of their situation, poorly paid as it is by the needy Austrian government, is a real calamity to them in these hard times. By the way, the custom of kissing the assistant's hand when he leaves the ward is not by any means obsolete, and when they are told not to do it, they still use the old-fashioned *vale*, "I kiss your hand, Herr Doctor." The disparity in social station between doctor and nurse is complete, and always observed.

To pursue the subject of clinical instruction. The American student may now have, if he choose, a private course on Diagnostic Midwifery, in English. He pays a small honorarium to one of the assistants, and may thereupon plunge at once "*in medias res*" at any time that he and his classmates (maybe half a dozen) agree upon. The students are introduced at once into the labor-room, where they are shown, at each lecture, from six to eight cases in various stages. They are told how to diagnosticate first from subsequent pregnancy by the condition of the os uteri, &c., to recognize different presentations, to decide whether the pelvis is adequate to the passage of the fœtus, to estimate the child's safety by the fœtal pulse, to decide whether the woman is pregnant at all, and such questions. Almost all the instruction is clinical; the women are not exposed, but are obliged to submit to digital examination under the assistant's direction, or else leave the Hospital.

These women are not prostitutes, but as a rule they are unmarried. They are poor, hard laboring, robust; generally tolerably clean, but wearing peasants' clothes not very new. The time allowed them to remain in Hospital is nine days for all ordinary cases. They are commonly allowed their child to suckle as soon as possible—before they rise from the bed of labor, often. With regard to the mortality, it has been (in the autumn of 1865, for instance) as low as 2 or 3 in 1000 mothers; but is commonly higher, owing to occasional cases of metritis and peritonitis.

The ravages committed by puerperal fever in the last generation were simply shocking; but the revival of an ancient remedy—"soap and sand, and plenty of it"—has almost abolished this cause of mortality, except in sporadic cases. Each one of the rooms or wards is completely stripped of furniture about once in two months; the walls are whitewashed, the floors scrubbed, and the bedsteads (all wooden) are taken apart and washed and left standing in the open air several days; the straw bedding is ripped up and renewed.

Another course of lectures delivered by the assistants is the Operative. Classes consist of about a dozen members, and each is taught on the phantom or the *cadaver* to perform all the obstetric operations—as cranioclasm, decapitation, reposition of funis, turning, application of forceps (short). Students who have attended this course and that by the Professor may present themselves for examination for the degree of Master of Midwifery, a title which implies that the holder has passed a very fair and complete examination, lasting about half an hour, upon the *ars obstetrica*.

The general mode of practice here is not unlike our own. They derive their improvements, they say, rather from English and Scotch, than from French sources. The use of the "long forceps"—for forcing an impacted head through the brim of the pelvis—is condemned. The short forceps, of not unfrequent application, is that of Simpson, of Edinburgh, with slight modification; a form which gives

a joint incapable of absolute fixation, yet quite firm enough for all uses, while very *flexible* and adaptable to different positions of the head.

The woman is placed on her back, almost invariably, for convenience in auscultation, and, if necessary, for ocular demonstration. There is no hesitation in uncovering the whole of a woman's person so far as anything requires to be shown to the students. In operations, the position (after the patient has been narcotized by chloroform) is the same as that for perineal section.

Ether is not used. Chloroform is only given in extreme cases. The perinæum is of course supported, and very skilfully, too, but ruptures are not uncommon, as with us. The placenta is solicited, by pressing the abdomen, very soon after delivery, and the cord is tied, once only, in a very few minutes, or as soon as the pulse begins to slacken. The bandage to the mother's abdomen is not unknown, but is used only very rarely indeed. There is very little elegance of form about the women's waists, either before or after; but especially after pregnancy and recovery they present a preposterous appearance. "Milk sickness," as a concomitant of the appearance of milk, is unknown; but very frequently an *accumulation of fæces* a day or two after delivery is observed, which, along with various uneasy symptoms, is speedily removed by a dose of oleum ricini.

NORMAL CONDITION OF THE EUSTACHIAN TUBE.

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—In your issue of Feb. 7, page 25, is a paragraph entitled the "Eustachian Tube normally closed except in Deglutition," based upon a communication of Dr. James Jago, published in the *British and Foreign Medico-Chirurgical Review*, in which he propounds and defends "the view with much plausibility that the normal condition of this passage is that of closure, *except during the act of deglutition*. This opinion is based on experimentation in his own person, aided by an accidental condition of the fauces, arising from contraction of the tissues on the right side following amputation of a portion of the uvula."

While there is no doubt or suspicion of the validity of Dr. Jago's observations, still the writer would respectfully beg leave to dissent from his *conclusions*, as not justified by his premises or by the present state of knowledge in *this country* at least.

It may be that Dr. Jago refers to a closure of the Eustachian tube by the collapse of its parietes independent of the closure of its orifice. If so, the writer would not contend. But if Dr. J. means to say that *normally* the pharyngeal orifice of the Eustachian tube is closed except in deglutition, the writer would affirm that the opposite

is the case, viz., the normal state of the Eustachian orifice is a patent one *except* in deglutition.

Dr. J.'s opinion is based on autoscopy, aided "by an accidental condition of the fauces arising from contraction of the tissues on the right side following amputation of a portion of the uvula."

Confessedly we have here abnormal states—a uvula truncated and tissues contracted (which must mean contraction of the soft palate), and the Doctor states his conclusion as a normal state. We are inclined to think that the contraction in question affects the patency of Dr. J.'s right Eustachian orifice—as the writer has repeatedly seen contraction of the soft palate do—and that in the movements of his deglutition the abnormally closed orifice may appear open to him.

But we must demur from Dr. Jago's concluding that the Eustachian orifice is normally closed except in the act of deglutition:—

1. Because he bases his opinion on an *abnormal* case, and that a single one.

2. Because rhinoscopy shows that in *normal conditions of the fauces, when the soft palate is relaxed and hanging vertically, the Eustachian orifices are patent.* This the writer has ascertained by autorhinoscopy, and has demonstrated to physicians, and is still prepared to do it. He will show either Eustachian orifice at will, and demonstrate that the opening is *patent*—large enough to take in the tip of a lady's little finger while the soft palate hangs relaxed. This opinion is not based on autoscopy alone. It has been verified by a large number of objective examinations.

This is the *experimentum crucis.*

3. In the act of deglutition, physiology shows that the soft palate is drawn upwards and backwards against the post-pharyngeal wall so tightly as not to allow of the ascent of the bolus, liquid or solid, into the post-nasal space. This is confirmed by observations of the rhinoscopists. They will tell you the chief obstacle to the successful examination of the posterior nares and Eustachian orifices is in this very approximation of the palate to the post-pharyngeal wall. This act is accomplished by the contraction of the elevator and tensor muscles of the soft palate. Anatomy shows the relation of these muscles to the orifice and course of the Eustachian tubes,* and rhinoscopic examinations show that these orifices are closed by the drawing up of the soft palate. The writer has repeatedly seen the process of closure take place. In Dr. Jago's case, it is easy to understand that his right Eustachian orifice is closed by this contraction, abnormal in his case, but not so easy to perceive why it should be alleged to be a normal state in all mankind.

4. If the Eustachian *tube* is always closed except during the act

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* "The Levator Palati arises from the extremity of the petrous bone and from the *posterior* and *inferior aspect* of the Eustachian tube. . . . . The Tensor Palati arises from the scaphoid fossa at the base of the internal pterygoid plate and from the *anterior aspect* of the Eustachian tube."—WILSON'S *Anatomy*, Philad. Edition, 1847, pp. 208, 209.

of deglutition, how can air escape from the external meatus, when the tympanum is perforated, in the common expedient of closing the mouth and nose and blowing outward with the breath? Or, when the tympanum is not ruptured, of a feeling of its distension by the same expedient? Or how can it be when the drum is absent and water is injected into the external meatus, that it will find its way into the throat?

5. Sometimes the writer has found deafness associated with an abnormal closure of an Eustachian orifice. How does this agree with Dr. Jago?

6. Dr. J. speaks of this condition securing the tympanum against the introduction of gastric gases evolved through the fauces. We would respectfully ask how aëriform bodies can penetrate a tube closed at one end, except by the slow diffusion of gases?

Very respectfully yours, EPHRAIM CUTTER.

Boston, February 12th, 1867.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY CHARLES D. HOMANS, M.D., SECRETARY.

DEC. 10th.—*Albuminuria; Hypertrophy and Dilatation of the Heart; the Renal Symptoms not manifest till three or four weeks before Death.*—Dr. C. W. SWAN showed the heart and kidneys, and gave an account of the autopsy. He also read the following history of the case, which he had received from the physician in attendance.

Oct. 4th.—The patient, aged 34 years, had been sick since June 1st, supposed with biliary trouble. Bowels loose or constipated; dejections at first very dark, latterly very light colored. Has pain in ankles, and of late has had swelling of the ankles at the end of the day. Pulse 90. Urine free, light colored. ℞. Ferri lactatis, ℈i.; acid. lactic. dil., ʒss.; syr. aurant. cort., q. s. ut. fʒij. M. A teaspoonful after eating.

8th.—No headache and no chills. Had chills and fever years ago, and has been in the army since. Hæmorrhoids. Inclined to cough. Very sallow.

13th. Pulse 92. Slight dry cough. Tongue not quite clean. Two dejections daily.

17th.—Severe burning in stomach since dinner yesterday. Normal dejections. Much cough. No physical signs of disease in chest. Pulse 96. Very pale.

20th.—Pulse 96. Burning in stomach and bowels. Three daily dejections, loose and not painful. Appetite poor. Thirst. Tongue foul. Poor sleep. Throbbing in head. Coughs, but least if lying on back.

22d.—Appetite good this morning. P.M., severe pain in left side.

23d.—Had a good night. Perspiration not so great as oftentimes before. No dejection. Pulse 96.

24th.—Perspires naturally, and not profusely. Pain in side continues, less severe.

25th.—Free dejection, well digested. Pain gone. Appetite good. Urine abundant.

27th.—Pulse 92. Tongue still coated, with clean strips. Slept well in night. No pain. Rode out yesterday without much fatigue.

30th.—Coughed considerably last night. A little mucous expectoration. Thirst and sweat less. Feels stronger. Three dejections yesterday, not very loose.

31st.—Cough very severe. No apparent cause for it.

Nov. 1st.—Pulse 94. Cough less. No dejection. On auscultation of chest, no difference in respiratory sounds on the two sides. But the *upper* chest *especially* filled with a souffle accompanying the first sound of the heart, though heard all over chest. Does not seem louder in left than right.

5th.—Cough last night. Natural dejection this morning.

7th.—Coughs more. Pulse 90. Appetite good.

11th.—Pulse 88. Cough less. Appetite not so good. Two dejections yesterday, the latter loose. No nausea. Pain under right shoulder-blade. No auscultatory signs of pulmonary disease. Very slight souffle with the first sound in different parts of the chest, and disappearing. Sweats very much, night and day.

15th.—Pulse yesterday 74, now 84. No sleep till 4 o'clock this morning. Purpura on legs. Cough severe. Slight mucous expectoration. One dejection daily.

16th.—Pulse 90. Three dejections, black and thin. Purpuric spots smaller.

17th.—Very comfortable night, with one pill (morphine and belladonna). Very little perspiration. Slight pain in right shoulder. Coughed but little. Difficult lying on left side on account of smothering sensation about the heart. Examination with Camman's stethoscope. No signs of tubercular disease of lungs; but the heart souffle very loud at apex and base of heart. Purpuric spots very bright and abundant on legs and feet, which are swollen. Two dejections, the last very dark-yellowish brown, with undigested almonds in it.

18th.—Pulse 90. No dejection. Purpuric spots less distinct. Legs very much swollen.

19th.—Appetite good. Pulse 86. Purpura fading. For the first time, slight albuminous deposit, with occasional casts in the urine. Cough and perspiration less.

22d.—Pulse 88. Appetite good. Purpuric spots have almost entirely disappeared.

24th.—Coughs considerably. Pain in right shoulder and in both legs.

25th.—Bad night. Pain in sciatic nerve as far down as left knee, which kept him awake till nearly daylight. Purpuric spots gone from the legs, but abundant and large on both feet. Pulse 84. Threw up his breakfast. Heart souffle not so marked. Urine contains a moderate amount of albumen and abundance of casts and lithates.

28th.—Scrotal anasarca enormous. Spots of purpura on lower extremities, and also on lower abdomen.

Dec. 1st.—Purpuric spots over arms, hands and trunk, less on the legs.

4th.—Very great amount of purpura over arms and abdomen, but less on the legs. Lower extremities very much swollen to above the hips, and abdominal walls œdematous, but no fluctuation. Urine contains a large amount of albumen, blood, epithelial and granular casts, and scattered cells of renal epithelium. During the day very drowsy, and in the evening slight wandering.

5th.—Very great increase of purpura. Forearms becoming œdematous.

6th. Knuckles very dark, purple and painful. Purpuric spots covering hands, forearms and abdomen, and appearing on nose.

8th.—Each knuckle looks as if daubed with tar. Has eaten nothing to-day. Pulse 100. Has been sitting up of late, on account of dyspnœa.

9th.—Sat up till after 2, A.M. Got into bed, and felt faint. Conscious and talking till 5½, A.M., when he died.

The treatment varied during the progress of the case.

Oct. 8th.—Patient got the hyposulphite of lime, ten grains three times a day.

17th.—Lactic acid and gentian with meals.

20th.—Medicine omitted, and the subcarbonate of bismuth substituted.

22d.—Ginger added to bismuth. Opiate p. r. n.

24th.—Acetic acid as a counter-irritant, to the chest.

26th.—Fowler's solution. Omit bismuth.

31st.—For cough: morph. acet., gr. ¼; ext. belladon., gr. ⅛. M. Ft. pil. p. r. n. Omit arsenic. Tinct. digitalis.

Nov. 3d.—Consultation. Omit medicine. ℞. Vin. rad. colchici, gtt. xii., after each meal.

7th.—Increase colchicum to gtt. xv.

11th.— " " " xx., and afterwards gtt. i. at each dose.

15th.—Omit colchicum. ℞. Ferri lactatis, ℈i.; acid. lact. dilut., ℥ss.; Syr. aurant. cort., ad f℥ij. M. Tablespoonful after each meal. Glass of Tarragona wine with each meal.

17th.—Dilute sulphuric acid added to drink.

24th.—For prescription of 15th, substitute ℞. Tinct. ferri muriat., gtt. vi. after each meal.

27th.—Omit iron. ℞. Acid. gallic., gr. x., every four hours while awake.

Dec. 3d.—Omit gallic acid. ℞. Potassæ chloratis, ℥ij. Dissolve in fifteen teaspoonfuls of water, and give one every three hours.

8th.—Infus. prun. Virg.

Autopsy, Dec. 9th, ten hours *post mortem*.—One or two pints of serum in each pleural cavity, about four ounces in the pericardium, and two pints in the peritoneal sac.

Lungs œdematous. No tubercular disease. In right lung, about midway in anterior region, near the surface, two large indurations, having the general characters of pulmonary apoplexy, but presenting, on section, a dull, dark, dirty-greenish color, as if from age.

Heart.—Considerably hypertrophied and dilated. Well-formed, black and fibrinous coagula in right side; a little in left. Aortic valves much disguised and disorganized, partly by extensive adhesion of two of the contiguous edges, but principally by irregular, long, projecting

vegetations, looking like fibrinous deposits, but containing cretaceous matter. One of the valves was ruptured, and what appeared to be a strip from its free edge, but roughened by morbid changes, stretched across the aortic orifice, free along its middle but attached at both ends, and was felt in that position by the finger passed into the aorta before the part was laid open.

Dr. J. B. S. Jackson says:—"Upon the broad fold of the mitral valve were three little formations of a very unusual character; the largest being a line or more in diameter, and the smallest half as large. They might be described as cysts in the substance of the valve, and of which the inner surface was sufficiently well defined; the largest containing only a very small, but recent coagulum, the second a little opaque, curdy matter, and the smallest a thick, puriform fluid. The second had been ruptured; but over the two others the surface of the valve was continuous. Otherwise the valve was healthy."

Dr. Ellis, who also examined the heart, says:—"The aortal valves presented a singular appearance. Their free edges were quite extensively adherent, and two (?) of the folds at least had been extensively ruptured. They had a ragged, lacerated appearance, and were covered with fibrin, which so blended with the natural tissues that it was impossible to distinguish the line which separated them.

"Above the valves was a long tongue of fibrinous-looking material, sprouting, as it were, from a very limited portion of the arterial wall. Considerable cretaceous matter was mingled with the fibrinous material. The vegetations described probably owed their formation partly to a morbid softening and growth of the tissues, partly to the deposition of fibrin upon the new material.

"The disease of the mitral valve seems to be best explained in the same way. The process of proliferation involved the tissue beneath the serous coat, but perforation of the latter did not take place. Had it occurred, the same ragged edge would have been seen as on the valves, and would have afforded the same facilities for collecting fibrin from the circulating blood."

Liver large, hard. Surface slightly uneven. No cirrhosis. Nutmeg appearance. Cells healthy.

Spleen quite large and firm. In its upper part was an unusually large white, fibrinous deposit, sharply defined.

Kidneys symmetrically diseased; very large, purplish, on section of a succulent appearance, and marked throughout the cortex with conspicuous dark ecchymotic points. Capsules easily removed.

By microscope, the section of cortical substance showed little but epithelium, which seemed so abundant as to obscure the outline of the tubules and their canals. Blood-staining marked the general direction of an occasional tubule. Isolated tubes were lined with the usual layer of epithelium, and seemed quite healthy, except that in every case, as far as seen, they were much dilated. If they had been filled with epithelium, as the view of the general section indicated, they had become emptied, when separated from the mass. There was much scattered epithelium, and it was healthy. No appearance of fatty degeneration.

Bibliographical Notices.

Thirteenth Annual Report of the Trustees and Superintendent of the Taunton (Mass.) Lunatic Hospital.

This institution seems to have fully sustained its previous good character, both in the economy of its management and in the number of patients discharged cured. On account of the exceedingly high price of everything necessary for the support of the Hospital, the Trustees say, "they have been forced to adopt the most rigid economy in their expenditures consistent with a proper care of their patients and the public property"; and that, "they have made it their first duty to see that the persons committed to the institution have every care necessary for their cure and restoration to society and friends." They bear renewed testimony to the fitness of the Superintendent, Dr. Geo. C. S. Choate, for his trust by his "unremitting care and devotion to the interests of the patients and his practical ability in the selection of his assistants."

The Superintendent congratulates the Board of Trustees, on the whole, upon another year of satisfactory and successful hospital life. The number of patients has not increased, in spite of the numerous admissions, on account of the energetic action of the Board of State Charities in removing from the institution such inmates as properly belonged elsewhere. Seventy in this manner have been removed during the past year; thus, perhaps, increasing the actual cost of each left, but relieving the crowded apartments and increasing the comfort of those remaining.

Dr. Choate's observations and experience concerning the effect of the late rebellion on the insanity of the people, are not very different, probably, from others in similar positions throughout the Northern States. He says:—"At the commencement of the late rebellion, contrary to common expectation, there was an immediate and general check to the numbers thronging to all public institutions, and to insane hospitals among the rest. This continued throughout the war, but with its cessation there has been an immediate though gradual increase." "A few, but not many patients, have been admitted in whom the mental disease might fairly be attributed to their connection with the great contest." "Eleven of those admitted during the year had served in the armies of the republic." "On the whole, it seems probable that the general effect of the national trial has been healthful to the public mind, and that although some new causes of mental disease have been introduced, yet the percentage of insanity has been slightly reduced." The mental shock may be more apparent in its evil effects in the disordered minds of the next generation. This was noticed after the great wars during Napoleon's career.

With regard to the new experimental institution for the incurable (so called) and harmless State paupers at Tewksbury, which has given rise to much discussion in this and other States as to its propriety and expediency, the Doctor reiterates the opinion expressed last year, "that such an institution, if rightly inaugurated and judiciously carried on, will be a benefit to the State in an economical point of view, will raise the character of the State Hospitals, and will subserve the interests of the insane generally."

It is probable that the majority of those having charge of the insane are opposed to the separation of the incurable from the curable insane as *unwise* and *unprofitable* in a pecuniary view; but in the present crowded condition of the Massachusetts hospitals there seems to be a necessity for some experiment of this kind, and no good reason why it should not be tried, under proper restrictions, and with the favorable opportunity of connecting it with one of the State almshouse farms, where increased facilities for labor are at hand.

Repairs and improvements, it is stated, have been put off from year to year in the hope that more favorable financial times would come; but necessity compelled the expenditure of about three thousand dollars, which has been furnished from the current income without incurring any debt; and the Doctor adds, "that no retrenchment has been made in the mode of living, in the number or wages of attendants, in the means of amusement, nor in anything having a direct or immediate bearing upon the welfare or the improvement of the inmates."

Whole number of inmates Sept. 30, 1865, 343—165 males and 178 females. Admitted during the year, 208—109 males and 99 females; making a total of 551 under treatment during the year—274 males and 277 females. Whole number discharged during the year, 168—86 males and 82 females. In addition to these, 23 males and 17 females died, and 2 males eloped, leaving in the institution Sept. 30, 1866, 341—163 males and 178 females—two less than the number at the beginning of the year.

The condition of those discharged was as follows:—Recovered, 78—39 males and 39 females; improved, 26—13 males and 13 females; unimproved, 64—34 males and 30 females. Fifty-three of these latter were removed by the Board of State Charities either to other State institutions or to the places of their legal settlement.

The 40 deaths were from sixteen different causes, the most prominent of which were, maniacal exhaustion 6, general paralysis 8—all males; and apoplexy, 5—4 males and 1 female.

Are the causes of insanity becoming more numerous, or is insanity simply made more prominent and public by the modern system for the care of the insane? These questions the Doctor asks and answers in his admirable report. He says:—"It seems probable that both these inquiries must be answered in the affirmative." "A higher civilization and greater cultivation of the intellectual powers bring to the human mind new and deeper hopes and fears, the new restraints imposed by society and legislation, new distractions by ambition, humiliation, and prosperous or adverse speculation, more frequent and intense mental efforts, too frequently a premature exercise of the intellectual faculties, and too many new modes of dissipation and unnatural excitement." "On the other hand, it cannot be doubted that the improved method of treatment of the present day, and the gradual removal of that stigma which was formerly attached more or less both to the insane and in some degree to their immediate connections, has led to their being brought more prominently into public view for care and treatment." Other causes are mentioned for the apparent increase of insanity, and among them the clearer recognition of the normal and deranged mental state, leading us to pronounce many now insane that would formerly have been "pitied and punished." C. K. B.

Northamp'on, February 12, 1867.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, FEBRUARY 28, 1867.

TRANSACTIONS OF THE AMERICAN MEDICAL ASSOCIATION FOR THE YEAR 1866.

The Transactions of the National Medical Association are before us in a handsome volume of some seven hundred pages, which, though less bulky than some of its predecessors, is none the less valuable. On a cursory examination, it strikes us as having gained in interest what it has lost in expansiveness. In addition to the minutes of the Seventeenth Annual Meeting, and the opening Address of the President (which we have already noticed), it contains a large number of valuable reports from the various committees of the Association, indicating an earnest desire on their part to fulfil the duty assigned to them faithfully and well. Among these the reports on Disinfectants, on the Causes and Pathology of Pyæmia, on Diphtheria, on Spotted Fever, and on Medical Literature, may be especially mentioned as indicating great labor on the part of the committees which prepared them, and containing much matter worthy of a permanent place in American medical literature. The volume, as usual, contains numerous shorter papers of various degrees of importance, none of which are unworthy of publication, so far as we have examined them, but most of which would in our judgment have found a more appropriate place in some of the thirty or more medical journals now published in this country. It is natural enough that our professional brethren should desire to lay their communications before the intelligent audience which the annual meetings of the Association offer them, and we should be sorry to say anything to discourage such a commendable ambition. But having done this, we feel that they ought not to expect the Association should, as a matter of course, give them a permanent place in their publications. Among such papers which the present volume contains are some of very great merit, such as the Prize Essay on Digitalin, for instance; but others, which it would be invidious to refer to more definitely, would find a more appropriate vehicle for publication elsewhere.

The brief but significant Reports of the Committee on Publication and the Treasurer, which follow immediately after the minutes of the Annual Meeting, indirectly sustain the view which we have presented. They show that the Association, as such, does not set so high a value on the annual volume as it ought to command, and which it would command, we think, if its contents were chiefly or exclusively of an authoritative, official character. Of the last volume seven hundred and fifty copies were published, and the pecuniary necessities of the Association required that the members should each be asked to contribute two dollars in addition to the annual assessment to entitle him to receive a copy. To this appeal but three hundred and fifty members only responded, and that number of copies has been distributed, the balance remaining in the hands of the Committee. The Treasurer presents the case without circumlocution when he says, "the fact has been again and again demonstrated that the members of the

American Medical Association do not consider the volume of *Transactions* worth the cost of its production." He declared the Association to be bankrupt, and owing the printer $404·52. This was for Volume XVI., and he adds:—"Unless the Association ceases to refer masses of matter for publication, and the bestowal of an annual prize, Vol. XVI. is the last annual volume that can be published." The reduced dimensions of Volume XVII., the one before us, are thus accounted for; and we shall learn from the next annual report how the means were provided by which it was published at all.

Now it certainly would have been a great pity if the valuable contents of Volume XVII. had not been published, and it *is* a great pity that, judging from the fate of the previous volumes, it must find so few readers. Probably there was not a delegate who attended the last meeting of the Association who did not subscribe for one or more American medical journals. If these papers had been brought before the profession at large through these publications, in all probability they would have reached all who will see them now besides hundreds and thousands of others. It seems to us, therefore, that the Association has no alternative, in order to disseminate its publications as widely as possible, but to reduce them to the smallest possible compass; confining itself (with rare exceptions, such as prize essays, for instance) to purely official documents, levying such an assessment at each annual meeting as will be sufficient to defray the expense of printing, and then distributing the volume gratuitously to all its members.

Treatment of Acute Rheumatism. Messrs. Editors,—Having for a year past used what I consider a new remedy for rheumatism, and with better success than from any other remedy, I consider it proper to ask the profession to make a trial of it. It is the syrup of lime, made according to Trousseau's prescription, as found in Parrish's Pharmacy. I have used it, according to the severity of the case and the age of the patient, in the dose of ten (10) drops to forty-five (45) drops, and repeated in from two (2) to six (6) hours, as symptoms have seemed to demand. In but one (1) case has any opiate been required from the beginning. Two (2) cases were complicated with Bright's disease, as indicated by the great abundance of albumen and the casts, as seen in the urine. In one of these the albuminuria entirely disappeared, and in the other it has been largely diminished.

There has been no constipation, but generally looseness of the bowels, after a couple of days' treatment.

The medicine is best taken in unskimmed milk, in quantity from a tablespoonful to four (4) ounces, according to the size of the dose of syrup.

Hoping that other members of the profession may meet with the success which I think I have had, I am very truly yours, Chas. E. Buckingham.

Boston, February 23, 1867.

For the information of our readers, we copy from Parrish's Pharmacy the prescription alluded to in the communication above:—

"Calx Saccharatum, Syrupus Calcis.—Trousseau used the following proportions for producing a solution of lime by the aid of sugar:—1 part of slaked lime, 10 parts water, and 100 parts syrup are boiled together for a few minutes, strained and diluted with four times the weight of simple syrup.

"This syrup has an alkaline taste and reaction, and is the solution of a chemical compound of sugar and lime. It is used for the same purposes as lime water, but on account of its causticity it is necessary to dilute it considerably. It is given to children in the quantity of twenty or thirty grains during the day; adults take from two to three drachms during the same time."

Vivisection—New York State Medical Society.—At the Annual Meeting of the Medical Society of the State of New York, held at Albany on the 5th inst., reported in full in the *Medical Record*, Dr. John C. Dalton addressed the Society on the subject of Vivisection. The subject of legislative interference with physiological investigation by experiments on living animals was referred to a Committee, who reported the following memorial, which was accepted and adopted:—

"*To the Hon. the Legislature of the State of New York:*—

"The members of the Medical Society of the State of New York, now assembled at their annual meeting in the city of Albany, respectfully represent to your Honorable Body:

"That they are informed that a bill has been, or is to be, presented for your consideration at the present session, to make more stringent the Act for the Prevention of Cruelty to Animals, and that this bill is intended or calculated, among other things, to interfere with or prohibit experiments upon animals for physiological and medical purposes, on the ground that such experiments are barbarous and cruel, and, at the same time, useless or unnecessary for the interests of humanity.

"While the members of the Medical Society sympathize to the fullest extent with a just abhorrence of cruelty, and with all attempts to prevent its infliction on the inferior animals, they are also convinced that these attempts should be always made in a reasonable and proper way, with a full understanding of the subject, and in such a manner as not to interfere with other praiseworthy objects, or to injure other legitimate attempts to advance the interests of humanity.

"In particular, they fully believe that legislative enactments to prevent the employment of experiments on animals for physiological study would be injurious to medical science, and would interfere with the improvement of medical practice. As the object of all medical knowledge is the study and cure of disease, anything which interferes with the improvement of medical knowledge must also diminish the efficacy of the healing art.

"Experiments upon animals have always been a most valuable aid in medical investigations. They have often assisted in accomplishing important discoveries, and without their help medical knowledge at the present day would have been in a position much inferior to that which it actually holds. The members of the State Medical Society would, therefore, view with regret the passage of any laws calculated to prohibit or interfere with this kind of physiological investigation.

"It is true that all such experiments should be performed with discretion, and in such a way as not to inflict suffering in a wanton and cruel manner. Your memorialists believe that, in point of fact, they are now performed, when necessary, in a proper and legitimate way, and with a due regard to the teachings of humanity; and furthermore, that existing laws are amply sufficient to prevent the exercise of wanton or cruel torture, if any such should at any time be attempted.

"Your memorialists would, therefore, respectfully represent, for the reasons given above, that physiological experiments upon animals are necessary, proper, and valuable for the due cultivation and improvement of the medical art; that they may be, and in point of fact are, performed without the infliction of wanton suffering or cruelty; that they lead to results which are of benefit both to mankind and to the animal creation, in the prevention and alleviation of diseases; and that it would be injurious to the interests of science and humanity to deprive the medical art of the assistance which they afford.

"*Resolved*, That the above memorial be adopted by the Society, and that the President of the Society be instructed to transmit a copy of it, with a copy of this resolution, to the two branches of the Legislature, and to the Governor of the State of New York.

C. M. Crandall,
Willard Parker,
S. O. Vanderpoel."

Paracentesis Pericardii.—This rare operation has recently been done at the Leeds Infirmary, with complete success, under the direction of Dr. Clifford Allbutt. We learn from the case, as reported in the London *Medical Times and Gazette*, that the patient, a man aged 26, was suffering from severe acute rheumatism, both muscular and arthritic. There was a large effusion within the pericardium, accompanied by acute pain in the region of the heart.

"On September 19, about 11.30, P.M., Dr. Allbutt was hastily summoned to see the patient, who was found sitting up in bed, with his elbows on his knees, struggling for breath. He was covered with a cold copious sweat. The area of pericardial dulness was found to be considerably increased, occupying nearly the whole of the left chest in front. There was perfect resonance all over the left lung behind. The patient was clearly at the point of death, and Dr. Allbutt determined at once to ask Mr. Wheelhouse to tap the pericardium. Mr. Wheelhouse was, therefore, called in to see the patient.

"The extent of the pericardial dulness was now accurately defined, and the probable position of the apex of the left ventricle and of the auricle was as far as possible ascertained. Mr. Wheelhouse determined to open the sac half an inch from the sternum on the left side and opposite the upper margin of the costal cartilage of the fifth rib. He passed in a fine trocar, inclining it slightly upwards and inwards, so as to enter, if possible, opposite the centre of the left ventricle. He pushed it onwards until he could distinctly feel the movements of the heart with the instrument; and then, sheathing the point, he pushed the canula well up to the heart until he could both feel and see the impulse. The trocar was then wholly withdrawn, and the fluid allowed to escape. This it did in a steady stream at first, which soon subsided into a saltatory flow coincident with the heart's contractions. The fluid consisted of a pale-pink coagulable serum. On the whole, about two and a half or three ounces escaped. During the operation the patient gradually obtained relief, and after the canula was withdrawn, the bed-rest was removed, and he was able to lie down. The breathing was now only 36 per minute, and he was able to speak a few words, and express that he felt relieved. The pulse had lost its rapid and struggling character, and could easily be counted, its number being about 110. The area of dulness was very decidedly lessened, but it was not thought well to tease the patient again with a minute examination."

The patient was discharged cured on the 13th of October, with slight pericardial dulness and a loud systolic souffle over the apex.

Phthisis in Peru.—On the sea-coast of Peru, as on that of the Gulf of Mexico, incipient tubercular phthisis is one of the commonest of pulmonary affections. From time immemorial, however, it has been known to the natives that a removal of phthisical patients, even in the stage of well-marked ulceration and cavities in the lungs, to the inland valley of Jauja, at a height of 10,000 feet above the sea, was followed by an almost invariable suspension of the disease—a fact which is quite corroborated by the practice of physicians at the present time. From the statistics of Dr. Fuentes, of Lima, published in 1858, it appears that nearly 80 per cent. of the cases of phthisis sent to the Jauja valley are cured. So forcibly has this fact been brought before the Peruvian Government, that it has established in this valley a military hospital for consumptive patients, and especially for native Indian soldiers, who in the capital are singularly prone to phthisis. Indeed, of the whole annual mortality of Lima, no less than twenty-two and twenty-nine thirty-ninths per cent. is attributed by Dr. Fuentes to this disease. So that, as Dr. Smith remarks, we must admit that the Peruvian physicians have abundant opportunity of testing the various modes of treating it; and the unanimous opinion at which they have arrived as to its curability by a removal of the patient to the Jauja valley, leaves no doubt as to the well-founded nature of the reputation which that district enjoys. How much of this curative power may be due to the moral influence exerted by its scenery and associations,

it would be difficult to say; but a nearer approach to Elysian felicity than the lives which its population are described as leading, it would be probably impossible to find in any less-favored land. The harvest being home, we are told, the whole rural population rest from their agricultural labors for eight months in the year, which they give up entirely to amusement and feasting, trusting to the rain of heaven during the other four months of the year to fertilize their land and yield them more food than they require. Surely Dr. Johnson must have had this valley in his eye when he wrote his pleasing fiction of "Rasselas," for no other of which we have ever heard realizes the physical conditions under which the Prince of Abyssinia sought for the perfection of human happiness. And we may mention for the benefit of such of our readers who, as valetudinarians or philosophers, may feel an interest in knowing more about this charming region than we are able to tell them, that if the project of running regular steamers up the Amazon from Pará, for 2500 miles from its mouth, which has just been started by an American company, becomes an established fact, they will be able to transport themselves into it, almost without changing vessels, after a voyage which, though long, is not tedious nor debilitating, and which will carry them through some of the most magnificent scenery that the world can produce.—*British and Foreign Medico-Chirurgical Review on Health Resorts.*

The American Naturalist; a Popular, Illustrated Monthly Magazine of Natural History.—We have received the first number of the magazine bearing the above title, and most cordially commend it to the attention and support of our readers. The Editors are young and zealous naturalists, fully competent to the task which they have undertaken, and worthy of all confidence. The list of *collaborateurs* contains the names of some of the most eminent naturalists in the country, and we have no doubt the publication will meet with the distinguished success which we feel assured it will deserve.

American Medical Association.—We would call the attention of our readers to the advertisement of a Committee of the American Medical Association calling a Convention of delegates from the Medical Colleges of the country. The subjects to be brought before the Convention are of the greatest importance, and we hope the meeting will be fully attended.

Cholera on board English Steamers from St. Thomas.—A correspondent of the *Union Médicale* of February 7th states, that the last two English steamers from St. Thomas which had arrived at Southamptom, during a voyage of fourteen days had had twenty deaths from cholera on board out of ninety-six cases. The French steamer which left St. Thomas about the same time arrived at St. Nazaire without any sickness on board. The writer suggests that the explanation of these facts may be found in the circumstance that the English steamers are obliged to wait at St. Thomas a fortnight to receive the inter-colonial correspondence, while the French steamers make but a short stay and proceed directly to Vera Cruz.

Appointments at the Massachusetts General Hospital.—At the meeting of the Trustees of the Massachusetts General Hospital, held on the 22d inst., Dr. James C. White was elected one of the Visiting Physicians to fill the vacancy caused by the death of Dr. A. A. Gould, and Dr. Henry K. Oliver was elected Physician to Out-patients in Place of Dr. J. C. White. Dr. C. E. Brown-Séquard was added to the Board of Consultation.

Appointment of House-officers to the Boston City Hospital.—The following gentlemen have been appointed as house-officers in the Boston City Hospital for the year commencing April 1, 1867:—*House-physicians*—Mr. R. H. Fitz, Mr. W. E. Boardman. *House-surgeons*—Mr. George Gay, Mr. R. L. Wilder, Mr. L. D. Gunter. *Assistant in Ophthalmic Department*—Dr. M. F. Gavin. The house-physicians and surgeons are residents of the Hospital, and they are required not to graduate during their term of service. The ophthalmic assistant is a non-resident, and may be a graduate in medicine. The positions are bestowed upon the successful candidates in a strict competitive examination.

Medical Education in Great Britain.—According to a recent enactment in Great Britain, no medical student can be admitted to medical lectures until after a successful examination in the higher branches of an English education, with mathematics and Latin; nor can he be examined for his final degree until after attendance upon four winter sessions of lectures, or three winter and two summer sessions, including in each session all the branches of medicine, with physics, botany and general history.—*Medical Record.*

Flannel Belts in the French Army.—The Secretary at War has just issued orders for such belts to be supplied to the whole of the French army. They are to be worn on the skin, and are expected to protect and keep warm the abdominal and lumbar regions.—*London Lancet.*

The fossil skeleton of a whale, perfectly entire, and measuring 150 feet in length, has been found at Hokitika, New Zealand.

Paris alone sends 18,000 children to nurse in the country.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, February 23d, 1867.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week	53	40	93
Ave. mortality of corresponding weeks for ten years, 1856—1866	43.8	39.0	82.8
Average corrected to increased population	00	00	91.22
Death of persons above 90	0	0	0

Communications Received.—Supra-renal Melasma, or Addison's Disease. By J. N. Borland, M.D.

Books Received.—Injuries of the Spine, with an analysis of nearly four hundred cases. By John Ashurst, Jr., M.D. Philadelphia: J. B. Lippincott & Co.—Angular Curvature of the Spine. By Benjamin Lee, M.D. Philadelphia: J. B. Lippincott & Co.

Deaths in Boston for the week ending Saturday noon, Feb. 23d, 93. Males, 53—Females, 40. Abscess, 1—accident, 2—apoplexy, 4—congestion of the brain, 1—disease of the brain, 3—disease of the bladder, 1—bronchitis, 5—cancer, 3—cholera infantum, 1—consumption, 16—convulsions, 6—croup, 4—dropsy, 2—dropsy of the brain, 2—scarlet fever, 1—typhoid fever, 1—gastritis, 1—disease of the heart, 2—malformation of the heart, 1—stricture of the intestines, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 7—marasmus, 2—measles, 3—old age, 3—paralysis, 2—premature birth, 1—smallpox, 4—unknown, 8—whooping cough, 3.

Under 5 years of age, 38—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 14—above 60 years, 21. Born in the United States, 64—Ireland, 21—other places, 8.